```
     (FILE 'HOME' ENTERED AT 15:01:41 ON 26 NOV 2001)

     FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 15:02:11 ON 26
     NOV 2001
L1            24 S (CANNE, L? OR CANNE L?)/AU,IN
L2            16 DUP REM L1 (8 DUPLICATES REMOVED)
L3           289 S (WILKEN, J? OR WILKEN J?)/AU,IN
L4          4779 S (SIMON, R? OR SIMON R?)/AU,IN
L5          1619 S (KENT, S? OR KENT S?)/AU,IN
L6          6641 S L2 OR L3 OR L4 OR L5
L7         13395 S (HEAD)(2A)(TAIL)
L8           116 S (NATIVE)(2A)(CHEMICAL)(2A)(LIGAT?)
L9         13508 S L7 OR L8
L10           49 S L6 AND L9
L11            2 S L10 AND (HIV OR RANTES)
L12            2 DUP REM L11 (0 DUPLICATES REMOVED)
L13       986916 S (DOMAIN? OR EPITOPE? OR MODULE?)
L14           70 S (L8 OR KENT) AND L13
L15           13 S (HETERO? OR OLIGOMER? OR FUSED OR HYBRID?) AND L14
L16            4 DUP REM L15 (9 DUPLICATES REMOVED)
L17          597 S L13(10A)(L7 OR L8 OR KENT)
L18          596 S L17 AND (L7 OR L8)
L19            0 S L18 AND CHEMOSELECT?
L20           36 S L18 AND (HIV OR RANTES OR TRANSCRIPTION)
L21           21 DUP REM L20 (15 DUPLICATES REMOVED)
L22       363268 S (PROTEIN? OR PEPTIDE?)(3A)(SYNTHES?)
L23           71 S L22 (5A)(L8 OR L7 OR KENT)
L24           19 S L13 AND L23
L25           10 DUP REM L24 (9 DUPLICATES REMOVED)
L26          506 S (CHEMICAL)(3A)(LIGAT?)
L27           12 S L26 (10A)(FUSED OR HYBRID? OR HETERO? OR MULTIMERIC)
L28          198 S (CROSS)(3A)(LIGAT?)
L29          279 S (CROSS?)(3A)(LIGAT?)
L30            8 DUP REM L27 (4 DUPLICATES REMOVED)
L31            0 S L29 AND L8
L32            0 S L29 AND L7
L33            0 S L29 AND KENT
L34          279 S L29 AND LIGAT?
L35            0 S CHEMOSELECT? AND L29
L36            0 S (FUSED OR FUSING OR HYBRID? OR HETERODIMER?) AND L22 AND L4
L37            0 S L22 AND L29
L38           24 S L26 AND DIMER?
L39           12 DUP REM L38 (12 DUPLICATES REMOVED)

     FILE 'STNGUIDE' ENTERED AT 15:37:25 ON 26 NOV 2001

     FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 15:37:59 ON 26
     NOV 2001

     FILE 'STNGUIDE' ENTERED AT 15:38:01 ON 26 NOV 2001
               SET SMA OFF
               SET SMA ON
               SET SMA OFF
               SET SMA ON

     FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 15:40:35 ON 26
     NOV 2001

     FILE 'STNGUIDE' ENTERED AT 15:40:40 ON 26 NOV 2001

     FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 15:41:33 ON 26
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NOV 2001

FILE 'STNGUIDE' ENTERED AT 15:41:48 ON 26 NOV 2001

FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 15:42:51 ON 26 NOV 2001
SET SMA OFF
SET SMA ON
SET SMA LOGIN

FILE 'CAPLUS' ENTERED AT 15:43:31 ON 26 NOV 2001
L41 1 S L***

FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 15:43:45 ON 26 NOV 2001

FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 15:45:01 ON 26 NOV 2001
L42 0 S (PERCIPALE, P? OR PERCIPALE P?)/AU,IN

FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 15:45:39 ON 26 NOV 2001
L43 31 S (PERCIPALLE, P? OR PERCIPALLE P?)/AU,IN
L44 12 DUP REM L43 (19 DUPLICATES REMOVED)
L45 208 S (CHEMICAL LIGAT?)/TI
L46 381520 S (HETERO? OR FUSED OR FUSING)/TI
L47 1128027 S (SYNTHES?)/TI
L48 1 S L45 AND L46 AND L47

FILE 'STNGUIDE' ENTERED AT 15:48:37 ON 26 NOV 2001

FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 15:49:03 ON 26 NOV 2001
L49 63706 S (DIMER? OR HETERODIMER?)/TI
L50 3 S L45 AND L49

FILE 'STNGUIDE' ENTERED AT 15:50:00 ON 26 NOV 2001

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L39 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2001 ACS
AN 1998:597749 CAPLUS
DN 130:4078
TI Synthesis by **chemical ligation** of homo- and heterodimeric polypeptides based on the bZIP and HTH DNA-binding motifs
AU Guarnaccia, Corrado; Zakhariev, Sotir; Toro, Imre; Simoncsits, Andras; Pongor, Sandor
CS International Centre for Genetic Engineering and Biotechnology, Trieste, 34012, Italy
SO Pept. 1996, Proc. Eur. Pept. Symp., 24th (1998), Meeting Date 1996, 441-442. Editor(s): Ramage, Robert; Epton, Roger. Publisher: Mayflower Scientific, Kingswinford, UK.
CODEN: 66RCA5
DT Conference
LA English
CC 34-4 (Amino Acids, Peptides, and Proteins)
AB A symposium report on the prepn. of **dimeric** peptides as mimics for DNA recognition.
ST DNA recognition peptide **dimer** mimic prepn symposium; chem ligation peptide **dimer** prepn symposium
IT Peptides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(DNA recognition **dimer** mimics; prepn. of homo- and heterodimeric polypeptides based on the bZIP and HTH DNA-binding motifs by chem. ligation)
IT 215722-91-1P
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation)
(prepn. of homo- and heterodimeric polypeptides based on the bZIP and HTH DNA-binding motifs by chem. ligation)
IT 215721-59-8P 215721-60-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of homo- and heterodimeric polypeptides based on the bZIP and HTH DNA-binding motifs by chem. ligation)
IT 215722-47-7P 215722-50-2P 215727-80-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of homo- and heterodimeric polypeptides based on the bZIP and HTH DNA-binding motifs by chem. ligation)
RE.CNT 3
RE
(1) Muir, T; Biochemistry 1994, V33, P7701 CAPLUS
(2) Percipalle, P; EMBO J 1995, V14, P3200 CAPLUS
(3) Percipalle, P; Peptides 1994 (Proceedings of the 23rd European Peptide Symposium) 1994, P391

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L39 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 8
AN 1995:364533 CAPLUS
DN 123:9921
TI **Chemical Ligation** of Cysteine-Containing Peptides: Synthesis of a 22 kDa Tethered **Dimer** of HIV-1 Protease
AU Baca, Manuel; Muir, Tom W.; Schnoelzer, Martina; Kent, Stephen B. H.
CS Scripps Research Institute, La Jolla, CA, 92037, USA
SO J. Am. Chem. Soc. (1995), 117(7), 1881-7
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA English
AB Thioester-forming chemoselective reaction of unprotected peptide fragments contg. cysteine residues has been investigated. This work shows that free sulfhydryl groups are compatible with the reactive components of thioester-forming ligation chem. This allows conjugation by chem. ligation of cysteine or other thiol-contg. peptides, followed by postligation disulfide bond formation to form folded protein domains, or large multisubunit synthetic proteins. Under acidic conditions, peptides bearing bromoacetyl or .alpha.-thiocarboxylate groups did not undergo intermol. reaction with the sulfhydryl group of cysteine. Intramol. reaction also did not occur, provided a sufficient no. of intervening residues sepd. the functionalities. The results of these studies have been used in the design and synthesis of a 22 kDa tethered **dimer** HIV-1 protease analog, prepd. by the convergent chem. ligation of four unprotected peptide segments. Two pairs of .apprx.50 residue peptides were ligated via formation of thioester bonds to form the individual monomer polypeptide chains. The ligated monomers each possessed a nonidentical two residue extension, one at the N-terminal and the other at the C-terminal, contg. an unprotected sulfhydryl group. These were subsequently linked via directed formation of a disulfide bond. The placement of the backbone thioesters and the disulfide bond were in functionally unimportant parts of the mol., and so the resulting enzyme analog retained full catalytic activity.

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